Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2012-08-16
Investment Auto Submission Date: 2012-02-28
Date of Last Investment Detail Update: 2012-02-28
Date of Last Exhibit 300A Update: 2012-08-16
Date of Last Revision: 2012-08-16

Agency: 006 - Department of Commerce **Bureau:** 48 - National Oceanic and Atmospheric Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: NOAA/NESDIS/ National Climatic Data Center (NCDC)

2. Unique Investment Identifier (UII): 006-000321600

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

NOAA is the Federal Agency with statutory responsibility for long-term archive management of the Nation's collection of environmental data and information. The National Climatic Data Center is responsible for the perpetual stewardship, archiving, and dissemination of climatological and environmental data. There are significant demands on the NCDC to provide information to the Nation and the World community. NCDC data and information products are available as part of a national decision support system for the purpose of saving lives and protecting property and enhancing the economic prosperity and quality of life in the United States. NCDC strategic objectives are dependent upon the use of extended environmental and climatological data and information periods of record. There is continued improvement and economic benefit to our Nation obtained from continued access to the rapidly increasing volume of historical data. NCDC is located in Asheville, NC. NCDC must be able to integrate data from various observing systems. There is also a need for data at common space and time scales to be stored and accessible in formats that can be easily interchanged. NCDC's Scientific Data Stewardship (SDS) projects are focused on two product types: Climate Data Records (CDRs) and Climate Information Records (CIRs). The SDS project is mainly focused on the generalization, application and validation of mature algorithms over multiple environmental satellites and sensors which together span climate-relevant time periods. NCDC has formed partnerships with numerous agencies i.e.,

Department of Defense (DOD), and National Aeronautics and Space Administration (NASA); within NOAA with the National Ocean Service (NOS), Office of Oceanic and Atmospheric Research (OAR) and the National Weather Service (NWS). NWS, NOS and OAR supports NCDC's work on various projects such as the Climate Reference Network (CRN), the NOAA Climate Services Portal, and the NOAA Climate Model Portal. NCDC manages NOAA's enterprise data archive system, the Comprehensive Large Array-data Stewardship System (CLASS) to archive large amounts of weather and climate data generated by the NESDIS environmental satellite programs. Other investments that collaborate with NCDC, include the National Oceanographic and Geophysical Data Centers, the National Integrated Drought Information System (NIDIS) and U.S. Regional Climate Reference Network (USRCRN).

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

The NCDC works to close these gaps by allowing the Nation to be prepared to mitigate the effects of climate and weather extremes that are amplified by changes in population. The NCDC archives and provides access to 99 percent of all National Oceanic and Atmospheric Administration (NOAA) data. The Center assesses climatic trends and changes based on environmental data and the use of modern technology. If the NCDC core operations were to cease, climate-related decision assistance and research affecting the scientific community, private sector, government, and educational community would be negatively impacted. NCDC the development of a NOAA-wide Economics website with its NOAA partners (www.economics.noaa.gov). This Web Site presents a centralized source of information pertaining to the economic value and real-world application of NOAA's data products in decision-making, as well as the economic costs of extreme events on the environment and society. Funding cuts would impact or cease work to migrate legacy NOAA data to the CLASS archive. NCDC data and information products are available as part of a national decision support system for the purpose of saving lives and protecting property and enhancing the economic prosperity and quality of life in the United States. There is continued improvement and economic benefit to our Nation obtained from continued access to the rapidly increasing volume of historical data acquired, quality controlled, archived and made available through NCDC operations. If the latest acquisition is not approved or is delayed, major impacts to NCDC's ability to operate will be greatly impacted. The services of the Mission Support contract are for critical functions to include computer operations, IT security management, and customer order fulfillment. Funding loss to the Climate Data Records (CDR) program would severely impact the Nation's ability to 1) make observation-informed decisions by sectors affected by climate trends and variability (e.g., Energy, Coastal Planning, Agriculture, Defense, Transportation, Finance/Insurance), 2) manage, use and reuse data from legacy and future satellite systems (e.g., POES, GOES, DMSP and their successors), and 3) improve predictive modeling of climate change, adaptation and mitigation scenarios. CDR funding cuts would terminate competitive grants, multiple contract positions, salaries for scientists and would prohibit the purchase of IT hardware needed to process satellite data.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

NCDC transitioned three satellite-derived Climate Data Records from research to

operationally produced and sustained climate records. The three CDRS delivered included global calibrated records for Earth-reflected solar radiation, Earth-emitted infrared (thermal) energy, and water vapor in the upper troposphere as measured from the GOES and POES programs. Work to digitize NWS Cooperative Observer Program paper records continued with the goal of eliminating paper submissions entirely in the near future. NCDC rescued data across NOAA through the Climate Database Modernization Program. The CDMP has greatly improved the preservation of and access to NOAA's holdings by migrating many resources to digital media. The CDMP program had placed online over 54 million weather and environmental images that are available to researchers around the world via the Internet. This year CDMP projects included the preservation of aerial photography images of the U.S. coast lines back to the 1920s.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

CY: NCDC operations continue to operate at a computer systems availability rate of more than 98%, ensuring highly reliable ingest, archive and customer access to critical climate data and information. Progression to support multi-level security support was accomplished by the introduction of two-factor authentication using Common Access Cards. Over 400 million images have been scanned by the Climate Data Modernization Program. Customers downloaded over a petabyte of data through web access. The climate data archive grew to over 5.5 petabytes. Work began in the planning to migrate data archived in legacy systems to the CLASS environment. IT Security documents were updated, reviewed and approved. BY: Transition of migrating data archived in NCDCs current legacy systems to CLASS continues. NCDC Computer Operations continue to surpass required uptime. NCDC continues to operate in a secure environment. NCDC continues to build a robust configuration management environment. NCDC continues work in the area of data rescue. NCDC continues to provide access to data and products to the customer via improved web portals. NCDC continues to ingest, quality control and archive NOAA's environmental data. NCDC continues in the delivery of CDRs that focus on key societal issues, including: Water, drought, floods; energy, renewable energy; hurricanes, and coastal hazards.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2010-10-19

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$0.0	$0.0	$0.0	$0.0
DME (Including Planning) Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total DME (Including Govt. FTE):	0	0	0	0
O & M Costs:	$47.4	$22.5	$25.4	$22.8
O & M Govt. FTEs:	$12.1	$17.9	$17.2	$17.2
Sub-Total O & M Costs (Including Govt. FTE):	$59.5	$40.4	$42.6	$40.0
Total Cost (Including Govt. FTE):	$59.5	$40.4	$42.6	$40.0
Total Govt. FTE costs:	$12.1	$17.9	$17.2	$17.2
# of FTE rep by costs:	165	123	123	123
Total change from prior year final President's Budget ($)		$0.0	$42.6	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Changes to the FY President's Budget have not been distributed for review. Changes for the NCDC as a National Archive and Records Center does not project an end day for services that have continued for 60 years.

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded		DOCDG133W10CQ0042T0022	DOCDG133W0CQ0042	1330							

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
Contracts are for Operations and Maintenance of the Data Center, to include salaries for IT security and computer operations personnel. IT security personnel are critical to NCDC maintaining certification and accreditation, they respond to POA&Ms such as working to implement CAC authentication, improving encryption on system backups to protect system integrity and keeping security documents current. CDMP contracts are for digitizing data, but will cease in BY12.

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-16

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
321611001	NCDC HSPD12 Implementation	CAC readers to be installed on all desktops and laptops.			
321611002	Climate Data Modernization Program (CDMP)	Data conversion and archives rescue.			
321611003	NCDC System Virtualization	Virtualizing Linux and Sun systems when feasible.			
321611004	NCDC Security System 5009	Keeping documentation and system testing for NCDC system 5009 current.			
321611005	Climate Data Records	A climate data record is a time series of measurements of sufficient length, consistency and continuity to determine climate variability and change.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
321611001	NCDC HSPD12							

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
	Implementation							
321611002	Climate Data Modernization Program (CDMP)							
321611003	NCDC System Virtualization							
321611004	NCDC Security System 5009							
321611005	Climate Data Records							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
321611002	Phase I - Data Conversion	Work is performed by vendors who specialize in data conversion of paper, microform and other types of media. This media is converted to a pdf or other digital form and is made available to the public over the internet. Environmental and climatic data are identified and keyed and merged into respective NOAA baseline data sets for analysis. This work has a tremendous impact for economic and environmental decision making.	2011-09-30	2011-09-30	2011-09-30	182	0	0.00%
321611004	2011 - Security Documentation	Annual required updates to System	2011-09-30	2011-09-30	2011-08-18	182	43	23.63%

Key Deliverables								
Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
		5009 security documents.						
321611005	2011 Phase I - Climate Data Records	Management, Analysis and Review of climate data records.	2011-09-30	2011-09-30	2011-09-16	182	14	7.69%
321611003	Phase I - Virtualization of Sun systems	Begin assessement of Sun servers that are feasible for a virtualized environment.	2011-12-30	2011-12-30	2011-12-30	182	0	0.00%
321611002	Phase II - CDMP	Continue work to scan weather records and convert into PDF or other digital media.	2012-03-31	2012-03-31	2012-03-31	182	0	0.00%
321611005	2012 Phase II - Climate Data Records	Management, Analysis and Review of new climate data records.	2012-09-28	2012-09-28		179	0	0.00%
321611002	Phase III - CDMP	Continue work to scan weather records and convert into PDF or other digital media.	2012-09-30	2012-09-30		182	0	0.00%
321611004	2012 - Security Documentation	Annual required updates to System 5009 security documents.	2012-09-30	2012-09-30		182	0	0.00%

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
Customer Access - Availability of network Services. 96% uptime is requirement.	Percent systems are operationally accessible	Technology - Reliability and Availability	Over target	96.000000	96.000000	99.470000	96.000000	Monthly
Data Access: Metric describes the percent of incoming non-digital records that NCDC plans to scan until program ends or all NWS records are received digitally. The goal is to reduce the number of non-digital records incoming each month.	Percent Scanned	Customer Results - Customer Benefit	Over target	96.000000	96.000000	96.000000	96.000000	Monthly
Storage - Safe storage (primary & security copies) of all NOAA climate data consistent with NARA standard.	TBs	Technology - Information and Data	Over target	4.800000	5.520000	5.800000	6.200000	Quarterly
Percent of NCDC Sun/Solaris servers targeted for virtualization.	Number virtualized	Technology - Reliability and Availability	Over target	20.000000	40.000000	50.000000	16.000000	Quarterly
Percent of NCDC Linux servers targeted for virtualization.	Number virtualized	Technology - Reliability and Availability	Over target	0.000000	15.000000	15.000000	12.000000	Quarterly
Percent of CAC card readers installed.	Percent Complete	Process and Activities - Security and Privacy	Over target	0.000000	90.000000	100.000000	100.000000	Quarterly
Percent of Systems Migrated to Window 7	Percent Complete	Process and Activities - Cycle Time and Timeliness	Over target	0.000000	25.000000	80.000000	50.000000	Quarterly

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
Intrusion Detection System (IDS) monitoring (hours per day)	Number	Process and Activities - Security and Privacy	Over target	10.000000	10.000000	10.000000	10.000000	Quarterly
Transition of Climate Data and Information Records to Operations.	Percent Complete	Mission and Business Results - Services for Citizens	Over target	2.000000	5.000000	5.000000	3.000000	Quarterly